NAVY TRAINING SYSTEM PLAN

FOR THE

AIMS MARK XII

IDENTIFICATION FRIEND OR FOE

N86-NTSP-E-30-7115F/D

JULY 2002

AIMS MARK XII
IDENTIFICATION FRIEND OR FOE
EXECUTIVE SUMMARY

This Navy Training System Plan (NTSP) identifies the manpower, personnel, and training requirements associated with the AIMS MK XII Identification Friend or Foe (IFF) system, hereafter referred to as the MK XII. The MK XII is a radar beacon system used by surface ships, submarines, aircraft, and ground forces to identify one another and to distinguish themselves from hostile and neutral forces. The MK XII system performs several different functions in support of various missions, such as anti-air warfare, aerial bombardment, naval bombardment, and naval attack. The MK XII also provides identification and altitude information for aircraft, a military and Federal Aviation Administration requirement for peacetime operational use of national airspace, and a Department of Defense requirement to maintain secure military identification. This NTSP addresses only the shipboard application of the MKXII.

Although mature, the MK XII continues to evolve as technology advances the capabilities of existing MK XII equipment and improved interface systems develop. The existing analog AN/UPX-25(V) and AN/UPX-27 Interrogators are being replaced by the AN/UPX-37 Digital Interrogator. The AN/UPX-37 Digital Interrogator is in the Operations and Support Phase of the Defense Acquisition System. Initial Operational Capability (IOC), Navy Support Date (NSD), and Material Support Date (MSD) for the AN/UPX-37 were achieved in December 2000. Additionally, existing analog AN/UPX-28, AN/APX-64, AN/APX-72, and AN/APX-100 Transponder Sets are being replaced by the new Common IFF Digital Transponder (CXP). The CXP is a Commercial Off-The-Shelf, Non-Developmental, Acquisition Category IV (T) program that will reach Acquisition Milestone Decision Point C (Authority to enter full rate procurement) in October 2002. IOC, NSD, and MSD for CXP is scheduled for February 2003.

The MK XII is operated by officers and Operations Specialists assigned to the ship's Combat Information Center (CIC). There are no operator or watchstation billets specifically dedicated to the MK XII. Electronics Technicians (ET) with Navy Enlisted Classification 1572 perform MK XII organizational and intermediate level maintenance. The Space and Naval Warfare System Command Center, San Diego, California, performs depot level maintenance. The CXP will be maintained at the organizational and depot level. The contractor will perform depot level repair of the CXP.

No operator courses are taught exclusively for the MK XII system. System operation is taught as a by-product of the primary mission of CIC Officer and Operations Specialist training courses. MK XII organizational and intermediate level maintenance training is established at the Fleet Training Center (FTC), Norfolk, Virginia. CXP organizational level maintenance training will be added to the existing MKXII Maintenance course at FTC Norfolk.

Since the MK XII is a mature system, all manpower requirements are established. No change to existing manpower is required by incorporation of the AN/UPX-37 Digital Interrogator or the CXP.

AIMS MARK XII
IDENTIFICATION FRIEND OR FOE
TABLE OF CONTENTS

AIMS MARK XII
IDENTIFICATION FRIEND OR FOE
LIST OF ACRONYMS

2M	Microminiature
3M	Maintenance and Material Management
AATCS	Amphibious Air Traffic Control Center
AC	Alternating Current
ACDU	Active Duty
ADS-B	Automatic Dependent Surveillance-Broadcast
AIMS	A - Air Traffic Control Radar Beacon System (ATCRBS) I - Identification Friend or Foe (IFF) M - Military Secure S - Systems (indicating many configurations)
ALSP	Acquisition Logistics Support Plan
AOB	Average Onboard
ATCRBS	Air Traffic Control Radar Beacon System
ATIR	Annual Training Input Requirement
BIT	Built-In Test
CATCC	Carrier Air Traffic Control Center
CFY	Current Fiscal Year
CIC	Combat Information Center
CICU	Combat Information Center Upgrade
CIFF	Central Identification Friend or Foe
CIN	Course Identification Number
CINCLANTFLT	Commander in Chief, Atlantic Fleet
CINCPACFLT	Commander in Chief, Pacific Fleet
CNET	Chief of Naval Education and Training
CNO	Chief of Naval Operations
CONUS	Continental United States
CVN	Aircraft Carrier Nuclear
CXP	Common IFF Digital Transponder
DAIR	Direct Altitude Identification Readout
DI	Digital Interrogator
DT&E	Developmental Test and Evaluation
EM	Electronic Module

AIMS MARK XII
IDENTIFICATION FRIEND OR FOE
LIST OF ACRONYMS

ET	Electronics Technician
FMS	Foreign Military Sales
FTC	Fleet Training Center
FY	Fiscal Year
IFF	Identification Friend or Foe
IOC	Initial Operating Capability
ISLS	Interrogation Side Lobe Suppression
JROC	Joint Required Operational Capability
LPD	Amphibious Transport Dock Ship
MSD	Material Support Date
NA	Not Applicable
NAVAIRSYSCOM	Naval Air Systems Command
NAVICP	Navy Inventory Control Point
NAVPERSCOM	Navy Personnel Command
NAWCAD	Naval Air Warfare Center Aircraft Division
NEC	Navy Enlisted Classification
NSD	Navy Support Date
NTDS	Navy Tactical Data System
NTSP	Navy Training System Plan
OPEVAL	Operational Evaluation
OPNAV	Office of the Chief of Naval Operations
OPO	OPNAV Principal Official
OT&E	Operational Test and Evaluation
OS	Operations Specialist
PCB	Printed Circuit Board
PDA	Principal Development Activity
PFY	Prior Fiscal Year
PMA	Program Manager, Air
PPI	Planned Position Indicator

AIMS MARK XII
IDENTIFICATION FRIEND OR FOE
LIST OF ACRONYMS

PQS	Personnel Qualifications Standard
RF	Radio Frequency
RFT	Ready For Training
SIF	Selective Identification Feature
TAR	Training and Administration of the Naval Reserve
TD	Training Device
TTE	Technical Training Equipment
TECHEVAL	Technical Evaluation
TSA	Training Support Agency
UIC	Unit Identification Code
USS	United States Ship

AIMS MARK XII
IDENTIFICATION FRIEND OR FOE
PREFACE

This Draft Navy Training System Plan (NTSP) for the AIMS (see below for AIMS acronym) Mark XII Identification Friend or Foe (IFF) system, hereafter referred to as the MK XII, is an update to the Approved AIMS Mark XII IFF NTSP, E-30-7115E/A, dated April 2000. This NTSP has been updated to reflect the latest information on the MK XII and comply with guidelines set forth in the Navy Training Requirements Documentation Manual OPNAV Publication P-751-1-9-97. The major changes to this NTSP are as follows:

- Replacement of the analog AN/UPX-25(V) and AN/UPX-27 Interrogators with the AN/UPX-37 Digital Interrogator.

- Incorporation of AN/UPX-37 follow-on training information into the existing maintenance course.

- Incorporation of applicable portions of the Initial NTSP for the Common IFF Digital Transponder Program, A-50-0014/I.

- Replacement of the existing AN/UPX-28, AN/APX-64, AN/APX-72, and AN/APX-100 Transponder Sets with the new Common IFF Digital Transponder (CXP).

- . Incorporation of CXP follow-on training information into the existing maintenance course.

- Incorporation of program and format changes to that have occurred since the NTSP update.

The AIMS acronym was derived from:

A - Air Traffic Control Radar Beacon System (ATCRBS)
I - Identification Friend or Foe
M - Military Secure
S Systems (indicating many configurations)

PART I - TECHNICAL PROGRAM DATA

A. NOMENCLATURE-TITLE-PROGRAM

1. Nomenclature-Title-Acronym. AIMS Mark XII IFF

2. Program Element. 64211N

B. SECURITY CLASSIFICATION

1. System Characteristics ..... Confidential
2. Capabilities ..... Confidential
3. Functions..... Unclassified

C. MANPOWER, PERSONNEL, AND TRAINING PRINCIPALS

OPNAV Principal Official (OPO) Program Sponsor..... CNO (N612)

OPO Resource Sponsor ..... CNO (N612)

Developing Agency..... NAVAIRSYSCOM (PMA213)

Training Agency ..... CINCLANTFLT
CINCPACFLT
CNET

Training Support Agency..... NAVAIRSYSCOM (PMA205)

Manpower and Personnel Mission Sponsor ..... CNO (N12)
NAVPERSCOM (NPC-4, NPC-406D)

Director of Naval Training ..... CNO (N795)

D. SYSTEM DESCRIPTION

1. Operational Uses. The MK XII is a radar beacon system used by surface ships, submarines, aircraft, and ground forces to identify one another and to distinguish themselves from hostile and neutral forces. The MK XII performs several different functions in support of various missions, such as anti-air warfare, aerial bombardment, naval bombardment, and naval attack. In

addition, the MK XII provides aircraft identification and altitude information. Basic operational uses of the MK XII are:

- Anti-Air Warfare using Modes 1, 2, 3/A, and 4 to provide complete identification of airborne platforms
- Air Control using Modes 2, 3/A, and C to provide necessary data for control of friendly aircraft
- Air Traffic Control using Modes 2 and 3/A for aircraft departure and approach control of carrier aircraft
- Surface Identification using Modes 1, 2, 3/A, and 4 for complete identification of friendly surface platforms.

Additionally, transponders aboard aircraft can provide special purpose responses to the shipboard interrogator's operator with special audible and visible warnings. These special purpose replies include different emergency codes indicating an aircraft in trouble, or a communications failure and a special reply for position identification manually activated by the aircraft commander upon verbal request.

Existing IFF transponder and interrogator equipment used by the Navy are beyond their designed service life and suffer from poor reliability and parts obsolescence. Outdated technology adversely affects reliability, maintainability, and availability. The existing analog systems are increasingly difficult to calibrate and maintain, and repair parts are increasingly difficult to procure, resulting in an unacceptable level of mission readiness. Without upgrading these systems, the Navy's IFF capability will become antiquated and inefficient, with ever increasing maintenance and support costs. The need for this upgrade is documented as a part of the Joint Required Operational Capability (JROC) Mission Need Statement for Combat Identification (JROC Memo 027-92 of 13 Apr 92). The majority of fielded IFF transponders, including most of the AN/APX-100 (V) Transponders in tri-service use, do not have Mode S or growth capabilities to upgrade to Mode S. Therefore, the requirement exists to upgrade existing systems to achieve equal or better performance in conjunction with increased reliability, maintainability, and availability.

The CXP is a receiver-transmitter that provides automatic IFF of air or surface vehicles. It provides identification and surveillance reporting in response to challenges from interrogator-equipped airborne or seaborne platforms. The CXP also provides aircraft altitude reporting and tracking data necessary for civil and military air traffic control. The new CXP will continue to provide all functions of the legacy systems with the addition of Mode S Level III that includes Downlink of Aircraft Parameters and interoperation with Traffic Alert and Collision Avoidance System I/II Change 7.0. The CXP will also support future growth to a new secure IFF wave form, Mk XII Mode 5, as well as Automatic Dependent Surveillance - Broadcast (ADS-B) receive capability.

2. Foreign Military Sales. Other countries currently procure various types and quantities of MK XII components. Additional information concerning MK XII Foreign Military

Sales (FMS) is available through Naval Air Systems Command (NAVAIRSYSCOM), Program Manager, Air (PMA) 213.

E. DEVELOPMENTAL TEST AND OPERATIONAL TEST. The Chief of Naval Material approved the MK XII for Fleet use in March 1971. The approval was based on the successful Technical Evaluations (TECHEVAL) and Operational Evaluations (OPEVAL) of individual system components. As updated and modified components were incorporated into the MK XII, acceptance tests were performed as necessary.

Developmental Test and Evaluation and (DT&E) of the AN/UPX-37 Digital Interrogator was completed at Naval Air Warfare Center Aircraft Division (NAWCAD) St. Inigoes, Maryland, in May 1999. Operational Test and Evaluation (OT&E) was completed onboard the United States Ship (USS) George Washington, CVN 73, in September 1999.

DT&E of the CXP was successfully completed in May 2002. OT&E of the CXP is scheduled to begin in mid July 2002 aboard the Amphibious Transport, Dock Ship USS Nashville (LPD-13). OT&E will be performed by Commander Operations Test and Evaluation Force personnel and is scheduled for completion in August 2002.

F. AIRCRAFT AND/OR EQUIPMENT/SYSTEM/SUBSYSTEM REPLACED. The MK XII replaced the MK X Selective Identification Feature (SIF) System. The MK XII is functionally compatible with the MK X SIF. The AN/UPX-37 Digital Interrogator replaced the analog AN/UPX-25(V) and AN/UPX-27 Interrogators. The CXP will replace the analog AN/UPX-28, AN/APX-64, AN/APX-72, and AN/APX-100 Transponder Sets.

G. DESCRIPTION OF NEW DEVELOPMENT

1. Functional Description. The MK XII operates on the challenge-response principle. The system has five interrogation modes that can be used alone or in combination, allowing for several operational functions. The system also serves as a secondary radar to assist in tracking friendly forces, especially when radar return is obscured by clutter. Secondary radar is also required for air traffic control use when the target is out of range of the primary radar. Specific modes of operation are:

- Mode 1 - used as directed by field commands with 32 response codes available
- Mode 2 - used for platform identification by a specific airframe or ship with 4,096 response codes available
- Mode 3/A - used for air traffic control identification inside the Continental United States (CONUS) and assigned by the operational command outside of CONUS, with 4,096 response codes available
- Mode 4 - provides secure identification of friendly platforms and is classified

° Mode C - provides barometric pressure altitude of aircraft in 100-foot increments up to +126,700 feet above sea level.

The MK XII is composed of an interrogator (challenge) subsystem and a transponder (reply) subsystem. The interrogator subsystem permits a radar operator to interrogate other platforms and to interpret this data as specific identification of friendly radar targets. The interrogator subsystem may be either a "Black" IFF or a "Slaved" IFF. A Black IFF is a "stand-alone" interrogator subsystem not associated with any radar system; only IFF returns can be displayed. With a Slaved IFF, the interrogator is synchronized with a radar set. The operator can display IFF only, radar only, or both.

The transponder subsystem accepts a challenge from other platforms and provides the necessary coded replies as identification. The transponder subsystems used aboard ships are aircraft transponder sets adapted for shipboard use. Most large surface ships are equipped with one transponder and one or more interrogators. Smaller surface ships are transponder-only equipped. The MK XII was designed to prevent the transponder from responding to self-interrogation. Components of each subsystem are described below.

a. Interrogator Subsystem. The Interrogator Subsystem "questions" weapon system platforms by transmitting an encoded signal to evoke a response for identification. The interrogator subsystem is comprised of:

(1) Interrogator. The Interrogator consists of a transmitter and receiver capable of interrogating MK X SIF and MK XII IFF transponders by receiving Radio Frequency (RF) replies. The Interrogator processes these replies into proper video signals that are then applied to decoders and indicators. The interrogator sets include the AN/UPX-25(V), AN/UPX-27, and AN/UPX-37. The new AN/UPX-37 Digital Interrogator contains both AN/UPX-25(V) and AN/UPX-27 functionality and is replacing all AN/UPX-25(V) and AN/UPX-27 Interrogator Systems. The AN/UPX-29(V) Central IFF (CIFF) System is an enhanced IFF system that provides all of the AIMS features, but performs these functions as a stand-alone system. This system will is employed aboard AEGIS and amphibious assault class ships. The AN/UPX-29(V) is not included in this NTSP. For further information refer to the AN/UPX-29(V) Interrogator System NTSP, E-30-7815B/D, dated February 2002.

(2) Directional Antenna. The Directional Antenna is capable of generating sum and difference patterns for Interrogation Side Lobe Suppression (ISLS) capability. The AS-2188/U, AS-2189/U, or AS-2787/UPX Directional Antenna is mounted "piggy-back" to the search radar antenna or is slaved to the antenna when mounted on a separate pedestal.

(3) AS-177( )/UPX Omnidirectional Antenna. The AS-177/UPX, AS-177A/UPX, and AS-177B/UPX Omnidirectional Antennas provide side lobe suppression when used with the Interrogator, via the AN/UPA-61 RF Switching Group.

(4) AN/UPA-57 Antenna Pedestal Group. The AN/UPA-57 Antenna Pedestal Group is required to support and position an IFF antenna when not attached to the radar

antenna. This is accomplished by either synchronism to a remote command (slave) input, synchronism to manual command input, or independently at an adjustable continuous rate. The AN/UPA-57 consists of a pedestal assembly, control unit, manual antenna positioning control, and mast switch.

(5) AN/UPA-61 Radio Frequency Switching Group. The AN/UPA-61 RF Switching Group provides automatic ISLS RF switching capability that enables a ship's antenna to function alternately as a directional and side lobe suppression antenna in an IFF system. It can also alternate between a directional antenna and an omni-directional antenna. The AN/UPA-61 consists of an electronic switch assembly and control monitor assembly.

(6) Pulse Generators. The SG-841/UPX Pulse Generator samples the trigger of the associated radar and ensures the IFF video appears at the correct time. The SG-1066/UPX Pulse Generator is a video retimer that stores, processes, and retimes Mode 4 video signals.

(7) SN-501/UPX Video Synchronizer. The SN-501/UPX Video Synchronizer permits optimum operation of the IFF regardless of the many variations in radar timing that may occur. It is capable of interfacing two separate radar systems with one IFF interrogating subsystem when using a common radar antenna system.

(8) MX-8758( )/UPX Interference Blankers. The MX-8758/UPX and MX-8758A/UPX Interference Blankers are single channel defruiters that eliminate random non-synchronous signals. These signals appear as unsynchronized replies, or momentary clutter on the radar display, and are referred to as "fruit."

(9) AN/UPA-59( ) Decoder Groups. The AN/UPA-59A(V) and AN/UPA-59B are automatic decoding systems that operate in conjunction with interrogators. Each decoder group processes pulse-coded replies received by the interrogator system and provides video outputs to the Planned Position Indicator (PPI), or Naval Tactical Data System (NTDS) display console, and on direct readouts. There are several configurations of the AN/UPA-59( ). These decoder groups basically consist of an alarm monitor, intra-target data indicator, and video decoder.

(10) C-8430/UPX Master Identification Friend or Foe Control Monitor. Each interrogator subsystem requires one C-8430/UPX Master IFF Control Monitor to provide controls, indicators, and alarms to the operations supervisor. The C-8430/UPX is located in the Combat Information Center (CIC).

(11) KIR-1C/TSEC Crypto Computer. The KIR-1C/TSEC Crypto Computers use the MT-4667/U Computer Base to provide Mode 4 crypto coding for the AN/UPX-27 Interrogators and encrypted decoding of Mode 4 transponder replies.

(12) KIK-18( )/TSEC, KYK-13, KOI-18-01 Cryptographic Code Keys. The KIK-18/TSEC and KIK-18A/TSEC Cryptographic Code Key sets the individual

cryptographic codes for the KIR-1( )/ TSEC and KIT-1( )/TSEC. For the KIR-1C and KIT-1C, the KYK-13 and KOI-18-01 are paper code keys that set the codes.

b. Transponder Subsystem. When interrogated, the Transponder Subsystem automatically replies by transmitting an encoded signal. The transponder subsystems use aircraft transponder sets adapted for shipboard use. The following components are included in the transponder subsystem:

(1) AN/UPX-28(V) Transponder Set. The AN/UPX-28(V) Transponder Set is an electrical equipment cabinet that integrates the transponder and its ancillary equipment into a single enclosure.

(a) Transponder. The RT859A/APX-72 Transponder is used aboard ships as a receiver-transmitter which, when properly challenged, automatically processes and transmits coded replies. The AN/APX-72 is capable of responding to a single mode, a combination of modes, or all five modes.

(b) AS-177( )/UPX Omnidirectional Antenna. The AS-177/UPX, AS-177A/UPX, and AS-177B/UPX Omnidirectional Antennas receive IFF interrogations for processing by the transponder and then radiates subsequent replies. The omni-directional antenna also operates in conjunction with the AN/UPM-155 Test Set for systems tests.

(c) PP-6099( )/APX-72 Power Supply Converter. The PP-6099( )/APX-72 Power Supply Converter is required to convert 115 Volts Alternating Current to 28 Volts Direct Current for the shipboard operation of the AN/APX-72 Transponder Set. Several versions are available for the specific type of transponder.

(d) C-6280( )/APX-72 Transponder Control Unit. The C-6280( )/APX-72 Transponder Control Unit is required to provide controls, indicators, and alarms for the transponder system. The controls on the front panel are used to determine the status of the transponder, the reply codes for Modes 1 and 3, and which interrogations require a reply.

(e) CY-6816/APX-72 Control Enclosure. The CY-6816/APX-72 Control Enclosure adapts the C-6280( )/APX-72 Transponder Control Unit to shipboard use.

(f) TS-1843( )/APX Transponder Test Set. The TS-1843( )/APX Transponder Test Set is an in-line test set that evaluates performance characteristics of the transponder system and provides indications on a “Go” or “No Go” basis.

(g) KIT-1C/TSEC Crypto Computer. The KIT-1C/TSEC Crypto Computer decodes interrogations and produces the appropriate coded replies.

(h) KIK-18( )/TSEC, KYK-13, and KOI-18-01 Cryptographic Code Keys. As mentioned above, under the Interrogator System, one Cryptographic Code Key is supplied per AIMS installation to set individual encrypted codes. Some AIMS installations are

transponder-only, in which case the key will be supplied for the KIT-1( )/TSEC Crypto Computer only.

(i) TD-937( )/SPX Electronic Gate. The TD-937( )/SPX Electronic (or Suppression) Gate suppresses the transponder when a ship's own interrogators, or other local source, is transmitting challenges. This prevents the transponder from replying to any interrogators or radar transmissions from its own emissions. Transponder-only ships do not normally include the TD-937( )/SPX.

(2) AN/APX-117(V) Common IFF Digital Transponder System. The AN/APX-117(V) CXP System operates on the challenge-response principle. The system responds to interrogation. The transponder is used as part of a secondary radar system. The CXP will operate within the existing frequency spectrum for IFF operations.

(a) RT-1835/APX-117(V) Transponder Set. The RT-1835/APX-117(V) Transponder Set is used aboard ships as a receiver-transmitter which, when properly challenged, automatically processes and transmits coded replies.

(b) C12664/APX Transponder Control Unit. The C12664/APX Transponder Control Unit is used to provide controls, indicators, and alarms for the transponder system. The controls on the front panel are used to determine the status of the transponder, the reply codes, and to select modes.

(c) MT-7221/APX Equipment Mount. The MT-7221/APX Equipment Mount attaches the transponder to the equipment rack.

(d) AS-177( )/UPX Omnidirectional Antenna. The AS-177/UPX, AS-177A/UPX, and AS-177B/UPX Omnidirectional Antennas receive IFF interrogations for processing by the transponder and then radiates subsequent replies. The omni-directional antenna may also be used in conjunction with the AN/UPM-155 Test Set for systems tests.

(e) KIT-1C/TSEC Cryptographic Computer. The KIT-1C/TSEC Cryptographic Computer decodes interrogations and produces the appropriate coded replies.

(3) AN/APX-118(V) Common IFF Digital Transponder System. The AN/APX-118(V) CXP System operates identically to the AN/APX-117(V) CXP System. The only difference between the two systems is that the AN/APX-118(V) CXP System contains built-in cryptographic capability and does not use a KIT-1C/TSEC Cryptographic Computer.

(a) RT-1836(C)/APX-118(V) Transponder Set. The RT-1836(C)/APN-118(V) Transponder Set is used aboard ships as a receiver-transmitter which, when properly challenged, decodes interrogations and produces the appropriate coded replies.

(b) C12664/APX Transponder Control Unit. The C12664/APX Transponder Control Unit is used to provide controls, indicators, and alarms for the transponder system. The controls on the front panel are used to determine the status of the transponder, the reply codes, and to select modes.

(c) Equipment Mount for the RT-1836(C)/APX. Transponder Set. A secure Equipment Mount will be provided for the RT-1836(C)/APX Transponder Set. A nomenclature for this Equipment is in the assignment process.

(d) AS-177( )/UPX Omnidirectional Antenna The AS-177/UPX, AS-177A/UPX, and AS-177B/UPX Omnidirectional Antennas receive IFF interrogations for processing by the transponder and then radiates subsequent replies. The omni-directional antenna may also be used in conjunction with the AN/UPM-155 Test Set for systems tests.

2. Physical Description

NOMENCLATURE/EQUIPMENT	DIMENSIONS H x W x D (inches)	WEIGHT (pounds)
AN/UPX-25 Interrogator Set	15 x 14.5 x 19	99.0
AN/UPX-27 Interrogator Set	19 x 16 x 11	60.0
AN/UPX-37 Digital Interrogator Set	19 x 16 x 11	55.0
AS-2188/U Antenna	19 x 111.375 x 20.5	74.0
AS-2189/U Antenna	74 x 18.5 x 19	55.0
AS-2787/U Antenna	18.6 x 111.8 x 9	61.0
AS-1065/UPX Antenna Assembly	19.5 x 110.5 x 39.328	83.0
AN/UPA-57 Antenna Pedestal: AB-1206/UPA-57 Pedestal C-9373/UPA-57 Power Supply C-9374/UPA-57 Positioning SA-1942/UPA-57 Mast Switch	 26 x 21 x 19 14 x 19 x 27.2 4.5 x 7.75 x 7 4.75 x 3.25 x 4.6	 175.0 131.0 6.0 2.3
AN/UPA-61 RF Switching Group: C-8834/UPA-61 Control Monitor SA-1807/UPA-61 Elect. Switch	 7 x 17 x 9 6.25 x 11.5 x 2.75	 20.0 4.4
SG-841/UPX Pulse Generator	5 x 10.5 x 12	13.0

NOMENCLATURE/EQUIPMENT	DIMENSIONS H x W x D (inches)	WEIGHT (pounds)
SG-1066/UPX Pulse Generator	5 x 10.5 x 13.4	13.0
SN-501/UPX Video Synchronizer	4.9 x 13.7 x 16.75	26.0
MX-8758/UPX Interference Blanker	5 x 17 x 16.88	25.0
UPA-59(V) Decoder Group: KY-761(P)/UPA-59A(V) Video Decoder KY-761A(P)/UPA-59(V) Video Decoder	 12 x 5.94 x 19 12 x 5.94 x 19	 29.0 29.0
BZ-173A/UPA-59 Alarm Monitor	6.6 x 4.7 x 4	3.0
C-8430/UPX Control Monitor	8 x 10 x 8	8.5
KIR-1A/TSEC Cryptographic Computer	6.8 x 5.8 x 8.6	11.0
KIK-18/TSEC Cryptographic Code Key	1.8 x 4.5 x 21.6	3.0
AN/UPX-28 Transponder Set	15 x 14.5 x 19	99.0
AN/APX-72 Transponder System	6 x 7 x 13.5	15.0
AS-177A/UPX Antenna	20.125 x 6.5 x 6.5	7.0
AS-177B/UPX Antenna	20.125 x 6.5 x 6.5	7.0
PP-6099/APX-72 Power Supply	6 x 6.625 x 11.675	18.0
PP-6099A/APX-72 Power Supply	6 x 6.625 x 11.675	18.0
PP-6099B/APX-72 Power Supply	6 x 6.625 x 11.675	18.0
C-6280A(P)/APX Transponder Control Unit	5.75 x 5.25 x 3.09	2.75
CY-6816/APX-72 Control Case	10 x 8 x 8	5.5
TS-1843A/APX In-Line Transponder Test Set	3 x 3.047 x 7.859	2.2

NOMENCLATURE/EQUIPMENT	DIMENSIONS H x W x D (inches)	WEIGHT (pounds)
TS-1843B/APX In-Line Transponder Test Set	3.28 x 3.25 x 7.8	2.9
KIT-1C/TSEC Crypto Computer	6.8 x 5.8 x 8.6	12.0
TD-937/SPX Electronic Gate	6.5 x 5.5 x 13	10.4
TD-937A/SPX Electronic Gate	6 x 5 x 12.8	8.4
TD-937B/SPX Electronic Gate	6 x 5 x 12.5	11.5
AN/APX-117(V) CXP	5.375 x 5.375 x 10.2	10.0
RT-1835/APX-117(V) Transponder	6 x 7 x 13.5	15.0
C12664/APX Transponder Control Unit	5.75 x 5.25 x 3.09	2.75
MT-7221/APX Equipment Mount	1.6 x 6 x 8.560	2.0
Equipment Mount for the RT-1836(C)/APX Transponder Set.	1.6 x 6 x 8.560	2.0
RT-1835/APX-118(V) Transponder	6 x 7 x 13.5	15.0

3. New Development Introduction. The MK XII was retrofitted into ships that previously employed the MK X. The MK XII was installed during the production of new acquisitions subsequent to the MK X. The AN/UPX-37 Digital Interrogator is replacing the AN/UPX-27 on a one-for-one basis by retrofitting each system.

4. Significant Interfaces. In addition to the various shipboard radars whose trigger format and video processing techniques affect radar-IFF relationships, the MK XII electrically interfaces with other systems and equipment that have an impact on overall radar-IFF system performance. These interfaces include video amplifiers, radar and data distribution switchboards, electronic countermeasure blankers, radar azimuth converters, and PPI displays or NTDS consoles. On NTDS ships, the IFF systems also interconnect through data distribution switchboards, with a video signal simulator used as training equipment and a beacon video processor that interfaces IFF data with the NTDS.

For air traffic control operations, the IFF interfaces with the AN/TPX-42A(V) Carrier Air Traffic Control Center (CATCC) and Amphibious Air Traffic Control Center (AATCC) Direct Altitude Identification Readout (DAIR) System. Other system interfaces include ship's gyro, Radar Environmental Simulation System, and Target Acquisition System radar.

Functional interfaces of the Navy's AIMS include the Air Force's and Army's AIMS and the Federal Aviation Administration's ATCRBS. The MK XII also interfaces with its predecessor, the MK X SIF.

5. New Features, Configurations, or Material. There is no new technology associated with the MK XII. However, the new AN/UPX-37 Interrogator and CXP Transponder systems will use digital vice analog technology for transmitting and receiving IFF data. Two additional changes to the MK XII are in the research and development process. A new MK XIIA Mode 5 capability that will replace the existing Mode 4 and a Combat Information Center Upgrade (CICU) that will replace the existing AN/UPA-59 Decoder/Remote Control Indicator. When the MK XIIA Mode 5 and CICU programs have been formalized and more information becomes available, the information will be included in updates to this NTSP. For additional information concerning the MK XIIA Mode 5 and CICU programs refer to the MK XII In-Service Engineering Activity, NAWCAD St. Inigoes, Code 4.5.9.4.

H. CONCEPTS

1. Operational Concept. Operator duties for the MK XII consist of energizing and de-energizing the equipment, selecting modes, challenging and interpreting replies, and selecting mode functions at the remote set control. Officers and Operations Specialists (OS) assigned to the CIC and Air Traffic Controllers (AC) perform these actions during air traffic control operations. Surface ships are capable of operating their MK XII systems on a continuous basis.

2. Maintenance Concept. The maintenance concept for the MK XII has evolved from its early days. Then, MK XII equipment was repaired at the organizational level by removing and replacing defective piece parts on plug-in assemblies and Printed Circuit Boards (PCB). The organizational level maintenance concept in the Fleet today has evolved to repair MK XII equipment to the card level by removing and replacing the PCBs and Electronic Modules (EM). Piece part repair of PCBs and EMs is accomplished at the intermediate level of maintenance via Microminiature (2M) repair shops. General direction and guidance regarding the maintenance concept for the MK XII is provided by the Ships Maintenance and Material Management (3M) Manual, Office of the Chief of Naval Operations Instruction 4790.4 (series). The 3M Manual prescribes the three level maintenance concept: organizational, intermediate, and depot.

a. Organizational. Organizational level maintenance is performed by Electronics Technicians (ET) with Navy Enlisted Classification (NEC) 1572 and consists of preventive and corrective maintenance to the PCB and EM level.

(1) Preventive Maintenance. Preventive maintenance includes Built-In Test (BIT) operational readiness tests, periodic inspections, and scheduled maintenance. Preventive maintenance is performed per Maintenance Requirement Cards that are part of the Planned Maintenance System.

(2) Corrective Maintenance. Corrective maintenance includes troubleshooting, measuring, aligning, and repairing by removing and replacing defective PCBs and EMs.

b. Intermediate. Intermediate maintenance activities, ashore and afloat, perform maintenance actions beyond the capabilities of the organizational activities. These actions are performed by ETs with NEC 1572 and include fault verification, fault isolation using Automatic Test Equipment, and repair of MK XII equipment to the PCB and EM piece part level. These actions are performed by 2M repair shops afloat and Fleet Technical Support Centers ashore. Technical assistance and advisory services for the MK XII are provided by NAWCAD St. Inigoes IFF Systems Branch. No intermediate level maintenance is planned for the CXP.

c. Depot. All repairable assemblies beyond the capabilities of intermediate level maintenance, with the exception of the CXP and its components, are forwarded to the Space and Naval Warfare Systems Command Systems Center, San Diego, California, for repair and restoration. Depot level maintenance on the KIR-1C/TSEC and KIT-1C/TSEC is performed at designated cryptographic repair facilities. Depot level maintenance of the CXP will be performed by BAE Systems at its Greenlawn, New York facility.

d. Interim Maintenance. Interim Maintenance of the CXP will be provided by The Naval Air Systems Command In-Service Engineering Activity, St. Inigoes, MD prior to the Navy Support Date (NSD) scheduled for February 2003.

e. Life Cycle Maintenance Plan. There is no single depot level maintenance plan encompassing the many pieces of equipment that make up the different configurations of the MK XII. However, all failed repairable MK XII components beyond the capability of intermediate level repair, organizational level for the CXP, are forwarded to designated depot level repair sites as identified in the appropriate plan.

3. Manning Concept. Operator manpower requirements for the MK XII are determined by the CIC and air operation requirements for each class ship. There are no operator or watch station billets specifically dedicated to the MK XII. Maintenance manpower requirements are driven by the total maintenance workload for a specific configuration aboard a specific ship. The billet structure currently supporting the MK XII will not change as a result of this NTSP.

4. Training Concept. The overall objective of the MK XII training program is to provide a ready supply of trained maintenance technicians to the fleet. Initial training has been completed. MK XII follow-on maintenance training is established at Fleet Training Center (FTC) Norfolk, Virginia.

There is no operator course taught exclusively for the MK XII. Operation of the MK XII is taught as a by-product of the primary mission of CIC officer and OS training courses.

The MK XII Maintenance course with AN/UPX-37 information will be Ready For Training (RFT) in October 2002. The addition of the AN/UPX-37 information to the MK XII course curriculum will increase the course length by ten days.

The MK XII Maintenance course will be updated to include CXP information. A target RFT date of July 2003 has been established. The course length may increase until the legacy system training is phased out.

a. Initial Training. Initial training for the original MK XII equipment was completed over two decades ago. As new equipment and new versions of equipment that differed significantly from those superseded were developed, initial operation and maintenance training was provided to instructors to ensure technical integrity of follow-on training.

The contractor provided initial AN/UPX-37 Digital Interrogator operation and maintenance training to government DT&E, OT&E, and the initial cadre of fleet personnel. Initial training for DT&E personnel was completed in April 1999. Initial training for OT&E and cadre fleet personnel was completed in May 2000.

The contractor provided initial CXP operator and maintenance training to government DT&E, OT&E, and the initial cadre of fleet and instructor personnel. All initial training was completed in April 2002.

b. Follow-on Training

Title	**AIMS MK XII IFF System Maintenance**
CIN	A-102-0062
Model Manager ...	FTC Norfolk
Description	This course provides training to the ET, including maintenance of: ° AN/UPX-37 Digital Interrogator ° AS-2188/U, AS2189/U, and AS-2787/UPX Directional Antennas ° AS-177A/UPX and AS-177B/UPX Omnidirectional Antenna ° AN/UPA-57 Antenna Pedestal Group ° AN/UPA-61 RF Switching Group ° SG-841/UPX Pulse Generator ° SN-501/UPX Video Synchronizer ° MX-8758/UPX Interface Blanker ° AN/UPA-59 Decoder Group ° C-8430/UPX Master IFF Control ° KIR-1C/TSEC Crypto Computer ° KIK-18/TSEC, KYK-13, and KOI-18-01 Crypto Code Keys ° AN/APX-117/(V) CXP System ° AN/APX-118/(V) CXP System ° AN/RT-1835/APX-117(V) Transponder

° AN/RT-1836(C)/APX-118(V) Transponder
° C-12664/APX Transponder Control
° MT-7221/APX Mount
° AN/UPX/28 Transponder Set
° PP-6099/APX-72 Transponder
° TD-937/SPX Electronic Gate

Upon completion, the student will be able to perform as an organizational and intermediate level MK XII Maintenance Technician in a fleet environment under limited supervision.

Location ..... FTC Norfolk

Length ..... 105 days. 115 days with AN/UPX-37.

RFT date ..... Currently available. October 2002 with AN/UPX-37 and July 2003 with CXP.

Skill identifier..... ET 1572

TTE/TD..... Refer to elements IV.A.1 for TTE. TD is NA.

Prerequisites ..... ° A-100-0138, Electronics Technician Core A School
° A-100-0139, Advanced Electronics Technical Core
° A-100-0140, Electronics Technician Strand A School

c. Student Profiles

SKILL IDENTIFIER	PREREQUISITE SKILL AND KNOWLEDGE REQUIREMENTS
ET	° A-100-0138, Electronics Technician Core A School ° A-100-0139, Advanced Electronics Technical Core ° A-100-0140, Electronics Technician Strand A School

d. Training Pipelines. NA

I. ONBOARD (IN-SERVICE) TRAINING

1. Proficiency or Other Training Organic to the New Development. Operators use the Program Instruction Handbook for Decoder Group AN/UPA-59A(V)2, NAVELEX 0967-LP-465-5010, and the MK XII IFF Interface Information Guide NA 16-60MKXII-IFM-1 to supplement proficiency training. There is no proficiency or other training for MK XII maintenance since NEC ET 1572 can only be earned by successful completion of training course *A-102-0062, AIMS MK XII IFF System Maintenance*.

a. Maintenance Training Improvement Program. NA

b. Aviation Maintenance Training Continuum System. NA

2. Personnel Qualification Standards. Personnel Qualification Standards (PQS) material has been developed for the MK XII operator training and is contained in the Naval Education and Training Publication 10061 (series). There is no PQS for MK XII maintenance.

3. Other Onboard or In-Service Training Packages. Each class of ship has an individualized CIC operator training package specifically tailored to that ship's Projected Operating Environment.

J. LOGISTICS SUPPORT

1. Manufacturer and Contract Numbers. The following contracts are for procurement of the AN/UPX-37 Digital Interrogator and the CXP. There are no other outstanding contracts for MK XII equipment.

CONTRACT NUMBER	MANUFACTURER	ADDRESS
N00019-01-C-0271 AN/UPX-37	BAE Systems	One Hazeltine Way Greenlawn, NY 11740
N00019-00-C-0298 CXP	BAE Systems	One Hazeltine Way Greenlawn, NY 11740

2. Program Documentation. The Operational Logistics Support Summary, ATCE-OLSS-007, revised April 1991, was replaced by the User's Logistics Support Summary, ATC-ULSS-007 of 19 March 1996. An Acquisition Logistics Support Plan (ALSP) for the AN/UPX-37 Digital Interrogator, ATC-ALSP-010, was approved in February 2002. An ALSP for the CXP, ATC-ALSP-31-07 was approved in April 2002.

3. Technical Data Plan. All required technical manuals are available for the MK XII. Operation and maintenance manuals with Illustrated Parts Breakdown and Maintenance Requirement Cards for the AN/UPX-37 and the CXP are being delivered to each activity during installation. Refer to element IV.B.3 of this NTSP for a detailed list of technical manuals required to support maintenance training.

4. Test Sets, Tools, and Test Equipment. All Special Purpose test sets, special tools, special test equipment, and software required for operational and training activities are in place. Refer to element IV.A.1 of this NTSP for a detailed listing of test sets, tools, and test equipment required to support maintenance training. No new test sets, special tools, or test equipment are required to support the AN/UPX-37 Digital Interrogator or the CXP.

5. Repair Parts. The Naval Inventory Control Point (NAVICP), Mechanicsburg, Pennsylvania, has the overall supply support responsibility for provisioning all spare and repair parts for the interrogator system of the MK XII program. The NAVICP, Philadelphia, Pennsylvania, has overall supply support responsibility for provisioning all spare and repair parts for the existing transponder system of the MK XII program. Repair parts for the CXP will be procured through a Performance Based Logistics program monitored and administrated by the NAVICP Mechanicsburg. The material objective for the MK XII is to apply standard Navy supply support and provisioning policies that provide timely and economical life cycle support.

6. Human Systems Integration. Established human engineering principles and practices have been used in the development of the MK XII. These principles guide the design and development of future system functions and features. The design will be directed toward developing and improving effective human performance during MK XII operation and maintenance while making economical demands on personnel, skills, training, and costs. As a minimum, future designs will include:

- Physical measures to preclude interchange of units or components of the same or similar form that are not functionally interchangeable
- Physical measures to preclude improper mounting of units or components
- Measures (e.g., coding) to facilitate identification and interchange of interchangeable units or components
- Physical measures to facilitate preventive and corrective maintenance

K. SCHEDULES

1. Installation and Delivery Schedules. The shipboard installations of the MK XII IFF System in various configurations have been completed. Since its inception, changes to original equipment have been made through new and improved replacement components. Updating the MK XII is an ongoing endeavor through the Field Change Modification Program. Fleet-wide, approximately 45 modifications take place each year, depending on the availability of ships and funds. However, there is no master schedule covering these activities. Modifications are affected through the coordinated efforts of Type Commanders, Space and Warfare Systems Command, Naval Sea Systems Command, and the NAVAIRSYSCOM, as appropriate. Installation of the AN/UPX-37 Digital Interrogator began in December 2000 and is scheduled for completion in 2009. The contractor will deliver 45 AN/UPX-37 Digital Interrogators a year through 2009. Firm installation and delivery schedules for the CXP are currently under development. When this information becomes available it will be added to updates of this NTSP.

2. Ready For Operational Use Schedule. The MK XII was fleet operational in 1971. The AN/UPX-37 and CXP are Ready For Operational Use upon completion of installation and certification.

3. Time Required to Install at Operational Sites. The time required to install new and modified MK XII equipment varies by type of equipment and site of installation.

4. Foreign Military Sales and Other Source Delivery Schedule. Delivery schedules for FMS are available through NAVAIRSYSCOM, PMA213.

5. Training Device and Technical Training Equipment Delivery Schedule. All Technical Training Equipment (TTE) required to support MK XII maintenance training, with the exception of the CXP, is currently in place. TTE to support CXP maintenance training will be delivered to FTC Norfolk in December 2002. No Training Devices (TD) are required. FTC Norfolk is due to receive a total of 17 AN/UPX-37 Digital Interrogator (DI) Systems. They currently have nine AN/UPX-37 DIs on hand which were delivered in FY00. These will be used for training in October 2002. The remaining eight AN/UPX-37 Dis will be delivered in the out years as the AN/UPX-27s are phased out of the fleet.

L. GOVERNMENT-FURNISHED EQUIPMENT AND CONTRACTOR-FURNISHED EQUIPMENT TRAINING REQUIREMENTS. NA

M. RELATED NTSPs AND OTHER APPLICABLE DOCUMENTS

DOCUMENT OR NTSP TITLE	DOCUMENT OR NTSP NUMBER	PDA CODE	STATUS
Navy Training Systems Plan for the AN/UPX-29(V) Interrogator System	E-30-7815B/D	PMA213	Draft Feb 02
Navy Training Systems Plan for the Common IFF Digital Transponder Program	A-50-0014/I	PMA213	Initial Aug 00
MK XII IFF Interface Information Guide	NA 16-60MKXII-IFM-1	NA	Updated Mar 01
User's Logistics Support Summary for the Shipboard MK XII IFF	ATC-ULSS-007	NAWCAD	Approved Mar 96
Acquisition Logistics Support Plan for the AN/UPX-37 Digital Interrogator	ATC ALSP-010	PMA213	Approved Feb 02
Acquisition Logistics Support Plan for the CXP Digital Transponder	ATC ALSP-31-07	PMA213	Approved Apr 02

PART II - BILLET AND PERSONNEL REQUIREMENTS

II.A. BILLET REQUIREMENTS

SOURCE OF MANPOWER: Total Force Manpower Management System **DATE:** Jan 2002
SOURCE OF SCHEDULE: Code 4.5.9.4 NAWCAD St. Inigoes **DATE:** Feb 2002

II.A.1.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY ACTIVATION SCHEDULE

ACTIVITY, UIC		PFYs	CFY02	FY03	FY04	FY05	FY06

Note: Some of the ships listed below are not yet comissioned, however, the manpower is in place for training purposes.

OPERATIONAL ACTIVITIES - USN							
AFG 3 USS La Salle	07172	1	0	0	0	0	0
AOE 3 USS Seattle	05848	1	0	0	0	0	0
AOE 4 USS Detroit	20120	1	0	0	0	0	0
AOE 6 USS Supply	21871	1	0	0	0	0	0
AOE 8 USS Arctic	21873	1	0	0	0	0	0
AS 39 USS Emory S. Land	45254	1	0	0	0	0	0
AS 40 USS Cable	45255	1	0	0	0	0	0
AS 41 USS McKee	68780	1	0	0	0	0	0
CV 67 USS John F. Kennedy	03367	1	0	0	0	0	0
CVN 65 USS Enterprise	03365	1	0	0	0	0	0
CVN 69 USS Dwight D. Eisenhower	03369	1	0	0	0	0	0
CVN 71 USS Theodore Roosevelt	21247	1	0	0	0	0	0
CVN 73 USS George Washington	21412	1	0	0	0	0	0
CVN 75 USS Harry S. Truman	21853	1	0	0	0	0	0
CVN 76 USS Ronald Reagan	22178	1	0	0	0	0	0
DD 963 USS Spruance	20574	1	0	0	0	0	0
DD 968 USS Arthur W. Radford	20588	1	0	0	0	0	0
DD 969 USS Peterson	20589	1	0	0	0	0	0
DD 977 USS Briscoe	20603	1	0	0	0	0	0
DD 978 USS Stump	20604	1	0	0	0	0	0
DD 982 USS Nicholson	20614	1	0	0	0	0	0
DD 987 USS Obannon	20834	1	0	0	0	0	0
DD 988 USS Thorn	20835	1	0	0	0	0	0
DD 989 USS Deyo	20836	1	0	0	0	0	0
DD 997 USS Hayler	21416	1	0	0	0	0	0
FFG 13 USS Samuel E. Morrison	20966	1	0	0	0	0	0
FFG 28 USS Boone	21053	1	0	0	0	0	0
FFG 29 USS Stephen W. Groves	21054	1	0	0	0	0	0
FFG 32 USS John L. Hall	21057	1	0	0	0	0	0
FFG 36 USS Underwood	21103	1	0	0	0	0	0
FFG 39 USS Doyle	21106	1	0	0	0	0	0
FFG 40 USS Halyburton	21107	1	0	0	0	0	0
FFG 42 USS Klakring	21109	1	0	0	0	0	0
FFG 45 USS Dewert	21197	1	0	0	0	0	0
FFG 47 USS Nicholas	21199	1	0	0	0	0	0
FFG 49 USS Robert G. Bradley	21201	1	0	0	0	0	0
FFG 50 USS Taylor	21231	1	0	0	0	0	0
FFG 52 USS Carr	21233	1	0	0	0	0	0

FFG 53 USS Hawes	21234	1	0	0	0	0	0

II.A.1.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY ACTIVATION SCHEDULE

ACTIVITY, UIC		PFYs	CFY02	FY03	FY04	FY05	FY06
FFG 55 USS Elrod	21236	1	0	0	0	0	0
FFG 56 USS Simpson	21350	1	0	0	0	0	0
FFG 58 USS Samuel B. Roberts	21252	1	0	0	0	0	0
FFG 59 USS Kauffman	21390	1	0	0	0	0	0
FFG 8 USS Mcinerney	21032	1	0	0	0	0	0
LCC 20 USS Mt Whitney	20001	1	0	0	0	0	0
LHA 2 USS Saipan	20632	1	0	0	0	0	0
LHA 4 USS Nassau	20725	1	0	0	0	0	0
LPD 12 USS Shreveport	07195	1	0	0	0	0	0
LPD 13 USS Nashville	07196	1	0	0	0	0	0
LPD 14 USS Trenton	07200	1	0	0	0	0	0
LPD 15 USS Ponce	07201	1	0	0	0	0	0
LPD 4 USS Austin	07175	1	0	0	0	0	0
LPD 5 USS Ogden	07176	1	0	0	0	0	0
LSD 37 USS Portland	20012	1	0	0	0	0	0
LSD 39 USS Mount Vernon	20014	1	0	0	0	0	0
LSD 44 USS Gunston Hall	21422	1	0	0	0	0	0
LSD 46 USS Tortuga	21562	1	0	0	0	0	0
LSD 48 USS Ashland	21531	1	0	0	0	0	0
LSD 50 USS Carter Hall	21880	1	0	0	0	0	0
LSD 51 USS Oak Hill	21958	1	0	0	0	0	0
T-AE 29 USNS Mount Hood	42844	1	0	0	0	0	0
T-AE 34 USNS Mount Baker	39537	1	0	0	0	0	0
T-AH 20 USNS Comfort	46246	1	0	0	0	0	0
AFG 11 USS Coronado	07194	1	0	0	0	0	0
AOE 1 USS Sacramento	05832	1	0	0	0	0	0
AOE 10 USS Bridge	21979	1	0	0	0	0	0
AOE 2 USS Camden	05833	1	0	0	0	0	0
AOE 7 USS Rainier	21872	1	0	0	0	0	0
CV 63 USS Kitty Hawk	03363	1	0	0	0	0	0
CV 64 USS Constellation	03364	1	0	0	0	0	0
CVN 68 USS Nimitz	03368	1	0	0	0	0	0
CVN 70 USS Carl Vinson	20993	1	0	0	0	0	0
CVN 72 USS Abraham Lincoln	21297	1	0	0	0	0	0
CVN 74 USS John C. Stennis	21847	1	0	0	0	0	0
DD 964 USS Paul F. Foster	20575	1	0	0	0	0	0
DD 965 USS Kinkaid	20576	1	0	0	0	0	0
DD 967 USS Elliot	20587	1	0	0	0	0	0
DD 971 USS David R. Ray	20591	1	0	0	0	0	0
DD 972 USS Oldendorf	20598	1	0	0	0	0	0
DD 973 USS John Young	20599	1	0	0	0	0	0
DD 975 USS Obrien	20601	1	0	0	0	0	0
DD 985 USS Cushing	20617	1	0	0	0	0	0
DD 991 USS Fife	20838	1	0	0	0	0	0
DD 992 USS Fletcher	20839	1	0	0	0	0	0
FFG 12 USS George Philip	20965	1	0	0	0	0	0
FFG 14 USS Sides	20967	1	0	0	0	0	0
FFG 15 USS Estocin	20968	1	0	0	0	0	0
FFG 33 USS Jarrett	21058	1	0	0	0	0	0
FFG 37 USS Crommelin	21104	1	0	0	0	0	0

II.A.1.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY ACTIVATION SCHEDULE

ACTIVITY, UIC		PFYs	CFY02	FY03	FY04	FY05	FY06
FFG 38 USS Curts	21105	1	0	0	0	0	0
FFG 41 USS Mc Clusky	21108	1	0	0	0	0	0
FFG 43 USS Thatch	21110	1	0	0	0	0	0
FFG 46 USS Rentz	21198	1	0	0	0	0	0
FFG 48 USS Vandegrift	21200	1	0	0	0	0	0
FFG 51 USS Gary	21232	1	0	0	0	0	0
FFG 54 USS Ford	21235	1	0	0	0	0	0
FFG 57 USS Ruben James	21351	1	0	0	0	0	0
FFG 60 USS Rodney M. Davis	21391	1	0	0	0	0	0
FFG 61 USS Ingraham	21430	1	0	0	0	0	0
FFG 9 USS Wadsworth	21033	1	0	0	0	0	0
LCC 19 USS Blue Ridge	05840	1	0	0	0	0	0
LHA 1 USS Tarawa	20550	1	0	0	0	0	0
LHA 3 USS Belleau Woods	20633	1	0	0	0	0	0
LHA 5 USS Peleliu	20748	1	0	0	0	0	0
LPD 10 USS Juneau	07184	1	0	0	0	0	0
LPD 6 USS Duluth	07177	1	0	0	0	0	0
LPD 7 USS Cleveland	07181	1	0	0	0	0	0
LPD 8 USS Dubuque	07182	1	0	0	0	0	0
LPD 9 USS Denver	07183	1	0	0	0	0	0
LSD 36 USS Anchorage	07203	1	0	0	0	0	0
LSD 41 USS Whidbey Island	21218	1	0	0	0	0	0
LSD 42 USS Germantown	21639	1	0	0	0	0	0
LSD 43 USS Fort McHenery	21400	1	0	0	0	0	0
LSD 45 USS Comstock	21452	1	0	0	0	0	0
LSD 47 USS Rushmore	21530	1	0	0	0	0	0
LSD 49 USS Harpers Ferry	21852	1	0	0	0	0	0
LSD 52 USS Pearl Harbor	21959	1	0	0	0	0	0
MCS 12 USS Inchon	20009	1	0	0	0	0	0
T-AE 27 USNS Butte	42843	1	0	0	0	0	0
T-AE 35 USNS Kiska	39538	1	0	0	0	0	0
TOTAL:		120	0	0	0	0	0
FLEET SUPPORT ACTIVITIES - USN							
COMAFLOATRAGRU Mayport, FL	30734	1	0	0	0	0	0
FACSFAC Jacksonville, FL	53895	1	0	0	0	0	0
FACSFAC Oceana, VA	42239	1	0	0	0	0	0
FCDIT Norfolk, VA	43594	1	0	0	0	0	0
Fleet Combat Training Center Atlantic Norfolk, VA	00281	1	0	0	0	0	0
Fleet Training Center Norfolk, VA	61797	1	0	0	0	0	0
FTSCLANT Det Matport, FL	0038A	1	0	0	0	0	0
FTSCLANT Norfolk, VA	65912	1	0	0	0	0	0
NAWCAD St. Inigoes, MD	64485	1	0	0	0	0	0
SIMA Earl, NJ	47080	1	0	0	0	0	0
SIMA Mayport, FL	32779	1	0	0	0	0	0
SIMA Norfolk, VA	32770	1	0	0	0	0	0
SIMA Pascagoula, MS	47318	1	0	0	0	0	0
Special Boat Unit 20 Norfolk, VA	42223	1	0	0	0	0	0
Special Boat Unit 22 Stennis Space, MS	52857	1	0	0	0	0	0

II.A.1.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY ACTIVATION SCHEDULE

ACTIVITY, UIC		PFYs	CFY02	FY03	FY04	FY05	FY06
Assault Craft Unit 5 Shore Component	46587	1	0	0	0	0	0
FACSFAC San Clemente Island, CA	35623	1	0	0	0	0	0
Fleet Combat Training Center Pacific San Diego,	61665	1	0	0	0	0	0
FTSCPAC Det Everett, WA	55232	1	0	0	0	0	0
FTSCPAC Det Pearl Harbor, HI	55302	1	0	0	0	0	0
FTSCPAC Det Sasebo, Japan	39450	1	0	0	0	0	0
FTSCPAC San Diego, CA	55304	1	0	0	0	0	0
Military Sealift Command Office San Diego, CA	43435	1	0	0	0	0	0
Navy Ship Yard Pearl Harbor, HI	32253	1	0	0	0	0	0
SIMA Ingleside, TX	47316	1	0	0	0	0	0
SIMA San Diego, CA	65918	1	0	0	0	0	0
Special Boat Unit 12 San Diego, CA	39696	1	0	0	0	0	0
TOTAL:		27	0	0	0	0	0

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
OPERATIONAL ACTIVITIES - USN					
AFG 3 USS La Salle, 07172					
ACDU	0	1	ET2	1572	
ACTIVITY TOTAL:	0	1			
AOE 3 USS Seattle, 05848					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
AOE 4 USS Detroit, 20120					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
AOE 6 USS Supply, 21871					
ACDU	0	1	ET2	1572	
ACTIVITY TOTAL:	0	1			
AOE 8 USS Arctic, 21873					
ACDU	0	1	ET2	1572	
ACTIVITY TOTAL:	0	1			
AS 39 USS Emory S. Land, 45254					
ACDU	0	1	ET2	1572	
	0	1	ET3	1572	
ACTIVITY TOTAL:	0	2			
AS 40 USS Cable, 45255					
ACDU	0	1	ET2	1572	
	0	1	ET3	1572	
ACTIVITY TOTAL:	0	2			
AS 41 USS McKee, 68780					
ACDU	0	1	ET2	1572	
	0	1	ET3	1572	
ACTIVITY TOTAL:	0	2			
CV 67 USS John F. Kennedy, 03367					
ACDU	0	1	ET2	1572	
	0	2	ET3	1572	

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
ACTIVITY TOTAL:	0	3			
CVN 65 USS Enterprise, 03365					
ACDU	0	1	ET2	1572	
	0	2	ET3	1572	
ACTIVITY TOTAL:	0	3			
CVN 69 USS Dwight D. Eisenhower, 03369					
ACDU	0	1	ET2	1572	
	0	2	ET3	1572	
ACTIVITY TOTAL:	0	3			
CVN 71 USS Theodore Roosevelt, 21247					
ACDU	0	1	ET2	1572	
	0	2	ET3	1572	
ACTIVITY TOTAL:	0	3			
CVN 73 USS George Washington, 21412					
ACDU	0	1	ET2	1572	
	0	2	ET3	1572	
ACTIVITY TOTAL:	0	3			
CVN 75 USS Harry S. Truman, 21853					
ACDU	0	1	ET2	1572	
	0	2	ET3	1572	
ACTIVITY TOTAL:	0	3			
CVN 76 USS Ronald Reagan, 22178					
ACDU	0	1	ET2	1572	
	0	2	ET3	1572	
ACTIVITY TOTAL:	0	3			
DD 963 USS Spruance, 20574					
ACDU	0	1	ET3	1572	1430
ACTIVITY TOTAL:	0	1			
DD 968 USS Arthur W. Radford, 20588					
ACDU	0	1	ET3	1572	1678

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
ACTIVITY TOTAL:	0	1			
DD 969 USS Peterson, 20589					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
DD 977 USS Briscoe, 20603					
ACDU	0	1	ET3	1572	1424
ACTIVITY TOTAL:	0	1			
DD 978 USS Stump, 20604					
ACDU	0	1	ET3	1572	1468
ACTIVITY TOTAL:	0	1			
DD 982 USS Nicholson, 20614					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
DD 987 USS Obannon, 20834					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
DD 988 USS Thorn, 20835					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
DD 989 USS Deyo, 20836					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
DD 997 USS Hayler, 21416					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
FFG 13 USS Samuel E. Morrison, 20966					
TAR	0	1	ET3	1572	1677
ACTIVITY TOTAL:	0	1			
FFG 28 USS Boone, 21053					

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
TAR	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 29 USS Stephen W. Groves, 21054					
TAR	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 32 USS John L. Hall, 21057					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 36 USS Underwood, 21103					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 39 USS Doyle, 21106					
TAR	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 40 USS Halyburton, 21107					
TAR	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 42 USS Klakring, 21109					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 45 USS Dewert, 21197					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 47 USS Nicholas, 21199					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 49 USS Robert G. Bradley, 21201					
ACDU	0	1	ET3	1572	1678

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
ACTIVITY TOTAL:	0	1			
FFG 50 USS Taylor, 21231					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 52 USS Carr, 21233					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 53 USS Hawes, 21234					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 55 USS Elrod, 21236					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 56 USS Simpson, 21350					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 58 USS Samuel B. Roberts, 21252					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 59 USS Kauffman, 21390					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 8 USS Mcinerney, 21032					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
LCC 20 USS Mt Whitney, 20001					
ACDU	0	1	ET2	1572	
	0	1	ET3	1572	
ACTIVITY TOTAL:	0	2			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
LHA 2 USS Saipan, 20632					
ACDU	0	1	ET2	1572	
	0	1	ET3	1572	9527
ACTIVITY TOTAL:	0	2			
LHA 4 USS Nassau, 20725					
ACDU	0	1	ET2	1572	
	0	1	ET3	1572	9527
ACTIVITY TOTAL:	0	2			
LPD 12 USS Shreveport, 07195					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
LPD 13 USS Nashville, 07196					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
LPD 14 USS Trenton, 07200					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
LPD 15 USS Ponce, 07201					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
LPD 4 USS Austin, 07175					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
LPD 5 USS Ogden, 07176					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
LSD 37 USS Portland, 20012					
ACDU	0	2	ET3	1572	1678
ACTIVITY TOTAL:	0	2			
LSD 39 USS Mount Vernon, 20014					

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
ACDU	0	2	ET3	1572	1678
ACTIVITY TOTAL:	0	2			
LSD 44 USS Gunston Hall, 21422					
ACDU	0	2	ET3	1572	1678
ACTIVITY TOTAL:	0	2			
LSD 46 USS Tortuga, 21562					
ACDU	0	2	ET3	1572	1678
ACTIVITY TOTAL:	0	2			
LSD 48 USS Ashland, 21531					
ACDU	0	2	ET3	1572	1678
ACTIVITY TOTAL:	0	2			
LSD 50 USS Carter Hall, 21880					
ACDU	0	2	ET3	1572	1678
ACTIVITY TOTAL:	0	2			
LSD 51 USS Oak Hill, 21958					
ACDU	0	2	ET3	1572	1678
ACTIVITY TOTAL:	0	2			
T-AE 29 USNS Mount Hood, 42844					
ACDU	0	1	ET3	1572	1471
ACTIVITY TOTAL:	0	1			
T-AE 34 USNS Mount Baker, 39537					
ACDU	0	1	ET3	1572	1471
ACTIVITY TOTAL:	0	1			
T-AH 20 USNS Comfort, 46246					
ACDU	0	1	ET2	1572	
ACTIVITY TOTAL:	0	1			
AFG 11 USS Coronado, 07194					
ACDU	0	1	ET2	1572	

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
ACTIVITY TOTAL:	0	1			
AOE 1 USS Sacramento, 05832					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
AOE 10 USS Bridge, 21979					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
AOE 2 USS Camden, 05833					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
AOE 7 USS Rainier, 21872					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
CV 63 USS Kitty Hawk, 03363					
ACDU	0	1	ET2	1572	
	0	2	ET3	1572	
ACTIVITY TOTAL:	0	3			
CV 64 USS Constellation, 03364					
ACDU	0	1	ET2	1572	
	0	2	ET3	1572	
ACTIVITY TOTAL:	0	3			
CVN 68 USS Nimitz, 03368					
ACDU	0	1	ET2	1572	
	0	2	ET3	1572	
ACTIVITY TOTAL:	0	3			
CVN 70 USS Carl Vinson, 20993					
ACDU	0	1	ET2	1572	
	0	2	ET3	1572	
ACTIVITY TOTAL:	0	3			
CVN 72 USS Abraham Lincoln, 21297					
ACDU	0	1	ET2	1572	

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
ACDU	0	2	ET3	1572	
ACTIVITY TOTAL:	0	3			
CVN 74 USS John C. Stennis, 21847					
ACDU	0	1	ET2	1572	
	0	2	ET3	1572	
ACTIVITY TOTAL:	0	3			
DD 964 USS Paul F. Foster, 20575					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
DD 965 USS Kinkaid, 20576					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
DD 967 USS Elliot, 20587					
ACDU	0	1	ET3	1572	1424
ACTIVITY TOTAL:	0	1			
DD 971 USS David R. Ray, 20591					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
DD 972 USS Oldendorf, 20598					
ACDU	0	1	ET3	1572	1424
ACTIVITY TOTAL:	0	1			
DD 973 USS John Young, 20599					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
DD 975 USS Obrien, 20601					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
DD 985 USS Cushing, 20617					
ACDU	0	1	ET3	1572	

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
ACTIVITY TOTAL:	0	1			
DD 991 USS Fife, 20838					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
DD 992 USS Fletcher, 20839					
ACDU	0	1	ET3	1572	1424
ACTIVITY TOTAL:	0	1			
FFG 12 USS George Philip, 20965					
TAR	0	1	ET3	1572	1677
ACTIVITY TOTAL:	0	1			
FFG 14 USS Sides, 20967					
TAR	0	1	ET3	1572	1677
ACTIVITY TOTAL:	0	1			
FFG 15 USS Estocin, 20968					
TAR	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 33 USS Jarrett, 21058					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 37 USS Crommelin, 21104					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 38 USS Curts, 21105					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 41 USS Mc Clusky, 21108					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 43 USS Thatch, 21110					

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 46 USS Rentz, 21198					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 48 USS Vandegrift, 21200					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 51 USS Gary, 21232					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 54 USS Ford, 21235					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 57 USS Ruben James, 21351					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 60 USS Rodney M. Davis, 21391					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 61 USS Ingraham, 21430					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
FFG 9 USS Wadsworth, 21033					
TAR	0	1	ET3	1572	1677
ACTIVITY TOTAL:	0	1			
LCC 19 USS Blue Ridge, 05840					
ACDU	0	1	ET2	1572	
	0	2	ET3	1572	

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
ACTIVITY TOTAL:	0	3			
LHA 1 USS Tarawa, 20550					
ACDU	0	1	ET2	1572	
	0	1	ET3	1572	9527
ACTIVITY TOTAL:	0	2			
LHA 3 USS Belleau Woods, 20633					
ACDU	0	1	ET2	1572	
	0	1	ET3	1572	9527
ACTIVITY TOTAL:	0	2			
LHA 5 USS Peleliu, 20748					
ACDU	0	1	ET2	1572	
	0	1	ET3	1572	9527
ACTIVITY TOTAL:	0	2			
LPD 10 USS Juneau, 07184					
ACDU	0	1	ET3	1572	1678
ACTIVITY TOTAL:	0	1			
LPD 6 USS Duluth, 07177					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
LPD 7 USS Cleveland, 07181					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
LPD 8 USS Dubuque, 07182					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
LPD 9 USS Denver, 07183					
ACDU	0	1	ET3	1572	
ACTIVITY TOTAL:	0	1			
LSD 36 USS Anchorage, 07203					
ACDU	0	2	ET3	1572	1678

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
ACTIVITY TOTAL:	0	2			
LSD 41 USS Whidbey Island, 21218					
ACDU	0	2	ET3	1572	1678
ACTIVITY TOTAL:	0	2			
LSD 42 USS Germantown, 21639					
ACDU	0	2	ET3	1572	1678
ACTIVITY TOTAL:	0	2			
LSD 43 USS Fort McHenery, 21400					
ACDU	0	2	ET3	1572	1678
ACTIVITY TOTAL:	0	2			
LSD 45 USS Comstock, 21452					
ACDU	0	2	ET3	1572	1678
ACTIVITY TOTAL:	0	2			
LSD 47 USS Rushmore, 21530					
ACDU	0	2	ET3	1572	1678
ACTIVITY TOTAL:	0	2			
LSD 49 USS Harpers Ferry, 21852					
ACDU	0	2	ET3	1572	1678
ACTIVITY TOTAL:	0	2			
LSD 52 USS Pearl Harbor, 21959					
ACDU	0	2	ET3	1572	1678
ACTIVITY TOTAL:	0	2			
MCS 12 USS Inchon, 20009					
ACDU	0	1	ET2	1572	
ACTIVITY TOTAL:	0	1			
T-AE 27 USNS Butte, 42843					
ACDU	0	1	ET3	1572	1471
ACTIVITY TOTAL:	0	1			
T-AE 35 USNS Kiska, 39538					

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
ACDU	0	1	ET3	1572	1471
ACTIVITY TOTAL:	0	1			
FLEET SUPPORT ACTIVITIES - USN					
COMAFLOATRAGRU Mayport, FL, 30734					
ACDU	0	2	ETC	1572	
ACTIVITY TOTAL:	0	2			
FACSFAC Jacksonville, FL, 53895					
ACDU	0	1	ET2	1572	
ACTIVITY TOTAL:	0	1			
FACSFAC Oceana, VA, 42239					
ACDU	0	1	ET2	1572	
ACTIVITY TOTAL:	0	1			
FCDIT Norfolk, VA, 43594					
ACDU	0	1	ETC	1572	1516
ACTIVITY TOTAL:	0	1			
Fleet Combat Training Center Atlantic Norfolk, VA, 00281					
ACDU	0	1	ET1	1572	
	0	1	ET3	1572	
ACTIVITY TOTAL:	0	2			
Fleet Training Center Norfolk, VA, 61797					
ACDU	0	1	ETC	1572	9502
	0	6	ET1	1572	9502
	0	7	ET2	1572	9502
ACTIVITY TOTAL:	0	14			
FTSCLANT Det Matport, FL, 0038A					
ACDU	0	1	ETC	1572	1510
	0	1	ETC	1572	1571
ACTIVITY TOTAL:	0	2			
FTSCLANT Norfolk, VA, 65912					
ACDU	0	1	ETC	1572	1511
	0	1	ET1	1511	1572

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
ACTIVITY TOTAL:	0	2			
NAWCAD St. Inigoes, MD, 64485					
ACDU	0	2	ET2	1572	
ACTIVITY TOTAL:	0	2			
SIMA Earl, NJ, 47080					
ACDU	0	1	ET1	1572	
ACTIVITY TOTAL:	0	1			
SIMA Mayport, FL, 32779					
ACDU	0	1	ET1	1572	
ACTIVITY TOTAL:	0	1			
SIMA Norfolk, VA, 32770					
ACDU	0	1	ET1	1572	
	0	1	ET3	1572	
ACTIVITY TOTAL:	0	2			
SIMA Pascagoula, MS, 47318					
TAR	0	1	ET1	1572	1491
ACTIVITY TOTAL:	0	1			
Special Boat Unit 20 Norfolk, VA, 42223					
ACDU	0	1	ET1	1572	
	0	4	ET2	1572	
ACTIVITY TOTAL:	0	5			
Special Boat Unit 22 Stennis Space, MS, 52857					
ACDU	0	1	ET1	1572	
	0	1	ET2	1572	
ACTIVITY TOTAL:	0	2			
Assault Craft Unit 5 Shore Component, 46587					
ACDU	0	1	ET1	1572	9502
	0	1	ET2157	1572	9526
ACTIVITY TOTAL:	0	2			
FACSFAC San Clemente Island, CA, 35623					

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
ACDU	0	1	ETC	1572	1570
	0	1	ET3	1572	1425
ACTIVITY TOTAL:	0	2			
Fleet Combat Training Center Pacific San Diego, CA, 61665					
ACDU	0	2	ET2	1572	
	0	2	ET3	1572	
ACTIVITY TOTAL:	0	4			
FTSCPAC Det Everett, WA, 55232					
ACDU	0	1	ETC	1572	1471
	0	1	ETC	1572	9604
ACTIVITY TOTAL:	0	2			
FTSCPAC Det Pearl Harbor, HI, 55302					
ACDU	0	1	ETC	1511	1572
ACTIVITY TOTAL:	0	1			
FTSCPAC Det Sasebo, Japan, 39450					
ACDU	0	1	ETCS	1511	1572
ACTIVITY TOTAL:	0	1			
FTSCPAC San Diego, CA, 55304					
ACDU	0	1	ETC	1572	
ACTIVITY TOTAL:	0	1			
Military Sealift Command Office San Diego, CA, 43435					
ACDU	0	1	ET2	1572	
ACTIVITY TOTAL:	0	1			
Navy Ship Yard Pearl Harbor, HI, 32253					
ACDU	0	2	ET2	1572	9526
ACTIVITY TOTAL:	0	2			
SIMA Ingleside, TX, 47316					
TAR	0	1	ET2	1572	9526
	0	1	ET2	1572	9527
ACTIVITY TOTAL:	0	2			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
SIMA San Diego, CA, 65918					
ACDU	0	1	ET1	1572	9527
	0	1	ET2	1572	9527
ACTIVITY TOTAL:	0	2			
Special Boat Unit 12 San Diego, CA, 39696					
ACDU	0	1	ETC	1572	
	0	1	ET1	5352	1572
	0	1	ET2	1572	
ACTIVITY TOTAL:	0	3			

II.A.1.c. TOTAL BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS		PFYs OFF	PFYs ENL	CFY02 OFF	CFY02 ENL	FY03 OFF	FY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL
USN OPERATIONAL ACTIVITIES - ACDU														
ET2	1572			29		0		0		0		0		0
ET3	1572			58		0		0		0		0		0
ET3	1572	1424		4		0		0		0		0		0
ET3	1572	1430		1		0		0		0		0		0
ET3	1572	1468		1		0		0		0		0		0
ET3	1572	1471		4		0		0		0		0		0
ET3	1572	1678		61		0		0		0		0		0
ET3	1572	9527		5		0		0		0		0		0
USN OPERATIONAL ACTIVITIES - TAR														
ET3	1572	1677		4		0		0		0		0		0
ET3	1572	1678		5		0		0		0		0		0
USN FLEET SUPPORT ACTIVITIES - ACDU														
ETCS	1511	1572		1		0		0		0		0		0
ETC	1511	1572		1		0		0		0		0		0
ETC	1572			4		0		0		0		0		0
ETC	1572	1471		1		0		0		0		0		0
ETC	1572	1510		1		0		0		0		0		0
ETC	1572	1511		1		0		0		0		0		0
ETC	1572	1516		1		0		0		0		0		0
ETC	1572	1570		1		0		0		0		0		0
ETC	1572	1571		1		0		0		0		0		0
ETC	1572	9502		1		0		0		0		0		0
ETC	1572	9604		1		0		0		0		0		0
ET1	1511	1572		1		0		0		0		0		0
ET1	1572			6		0		0		0		0		0
ET1	1572	9502		7		0		0		0		0		0
ET1	1572	9527		1		0		0		0		0		0
ET1	5352	1572		1		0		0		0		0		0
ET2	1572			13		0		0		0		0		0
ET2	1572	9502		7		0		0		0		0		0
ET2	1572	9526		2		0		0		0		0		0
ET2	1572	9527		1		0		0		0		0		0
ET3	1572			4		0		0		0		0		0
ET3	1572	1425		1		0		0		0		0		0
ET2157	1572	9526		1		0		0		0		0		0
USN FLEET SUPPORT ACTIVITIES - TAR														
ET1	1572	1491		1		0		0		0		0		0
ET2	1572	9526		1		0		0		0		0		0
ET2	1572	9527		1		0		0		0		0		0

II.A.1.c. TOTAL BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs OFF	PFYs ENL	CFY02 OFF	CFY02 ENL	FY03 OFF	FY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL
SUMMARY TOTALS:													
USN OPERATIONAL ACTIVITIES - ACDU													
	163			0		0		0		0		0	
USN OPERATIONAL ACTIVITIES - TAR													
	9			0		0		0		0		0	
USN FLEET SUPPORT ACTIVITIES - ACDU													
	59			0		0		0		0		0	
USN FLEET SUPPORT ACTIVITIES - TAR													
	3			0		0		0		0		0	
GRAND TOTALS:													
USN - ACDU													
	222			0		0		0		0		0	
USN - TAR													
	12			0		0		0		0		0	

II.A.2.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY DEACTIVATION SCHEDULE

SOURCE OF MANPOWER: Total Force Manpower Management System **DATE:** Jan 2002

SOURCE OF SCHEDULE: Code 4.5.9.4 NAWCAD St. Inigoes **DATE:** Feb 2002

ACTIVITY, UIC		**PFYs**	**CFY02**	**FY03**	**FY04**	**FY05**	**FY06**
OPERATIONAL ACTIVITIES - USN							
CV 64 USS Constellation	03364	0	1	0	0	0	0
TOTAL:		0	1	0	0	0	0

II.A.2.b. BILLETS TO BE DELETED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
OPERATIONAL ACTIVITIES - USN					
CV 64 USS Constellation, 03364, FY02 Increment					
ACDU	0	1	ET2	1572	
	0	2	ET3	1572	
ACTIVITY TOTAL:	0	3			

II.A.2.c. TOTAL BILLETS TO BE DELETED IN OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs OFF	PFYs ENL	CFY02 OFF	CFY02 ENL	FY03 OFF	FY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL
USN OPERATIONAL ACTIVITIES - ACDU													
ET2	1572		1		-1		0		0		0		0
ET3	1572		2		-2		0		0		0		0

SUMMARY TOTALS:

USN OPERATIONAL ACTIVITIES - ACDU													
			3		-3		0		0		0		0

GRAND TOTALS:

USN - ACDU													
			3		-3		0		0		0		0

II.A.3. TRAINING ACTIVITIES INSTRUCTOR AND SUPPORT BILLET REQUIREMENTS

DESIG RATING	PNEC/SNEC PMOS/SMOS		PFYs OFF	PFYs ENL	CFY02 OFF	CFY02 ENL	FY03 OFF	FY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL
TRAINING ACTIVITY, LOCATION, UIC: Fleet Training Center, Norfolk, VA, 61797														
INSTRUCTOR BILLETS														
USN														
ETC	1572	9502	0	1	0	1	0	1	0	1	0	1	0	1
ET1	1572	9502	0	5	0	5	0	5	0	5	0	5	0	5
ET2	1572	9502	0	5	0	5	0	5	0	5	0	5	0	5
SUPPORT BILLETS														
USN														
ET1	1572	9502	0	1	0	1	0	1	0	1	0	1	0	1
ET2	1572	9502	0	2	0	2	0	2	0	2	0	2	0	2
TOTAL:			0	14	0	14	0	14	0	14	0	14	0	14

II.A.4. CHARGEABLE STUDENT BILLET REQUIREMENTS

ACTIVITY, LOCATION, UIC	USN/ USMC	PFYs OFF	PFYs ENL	CFY02 OFF	CFY02 ENL	FY03 OFF	FY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL
Fleet Training Center, Norfolk, VA, 61797													
	USN	0.0	24.3	0.0	24.3	0.0	24.0	0.0	24.0	0.0	24.0	0.0	24.0
SUMMARY TOTALS:													
	USN	0.0	24.3	0.0	24.3	0.0	24.0	0.0	24.0	0.0	24.0	0.0	24.0
GRAND TOTALS:													
		0.0	24.3	0.0	24.3	0.0	24.0	0.0	24.0	0.0	24.0	0.0	24.0

II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS

DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS	BILLET BASE	CFY02 +/-	CFY02 CUM	FY03 +/-	FY03 CUM	FY04 +/-	FY04 CUM	FY05 +/-	FY05 CUM	FY06 +/-	FY06 CUM
a. OFFICER - USN				NA									
b. ENLISTED - USN													
Operational Billets ACDU and TAR													
ET2	1572		29	-1	28	0	28	0	28	0	28	0	28
ET3	1572		58	-2	56	0	56	0	56	0	56	0	56
ET3	1572	1424	4	0	4	0	4	0	4	0	4	0	4
ET3	1572	1430	1	0	1	0	1	0	1	0	1	0	1
ET3	1572	1468	1	0	1	0	1	0	1	0	1	0	1
ET3	1572	1471	4	0	4	0	4	0	4	0	4	0	4
ET3	1572	1677	4	0	4	0	4	0	4	0	4	0	4
ET3	1572	1678	66	0	66	0	66	0	66	0	66	0	66
ET3	1572	9527	5	0	5	0	5	0	5	0	5	0	5
Fleet Support Billets ACDU and TAR													
ETCS	1511	1572	1	0	1	0	1	0	1	0	1	0	1
ETC	1511	1572	1	0	1	0	1	0	1	0	1	0	1
ETC	1572		4	0	4	0	4	0	4	0	4	0	4
ETC	1572	1471	1	0	1	0	1	0	1	0	1	0	1
ETC	1572	1510	1	0	1	0	1	0	1	0	1	0	1
ETC	1572	1511	1	0	1	0	1	0	1	0	1	0	1
ETC	1572	1516	1	0	1	0	1	0	1	0	1	0	1
ETC	1572	1570	1	0	1	0	1	0	1	0	1	0	1
ETC	1572	1571	1	0	1	0	1	0	1	0	1	0	1
ETC	1572	9502	1	0	1	0	1	0	1	0	1	0	1
ETC	1572	9604	1	0	1	0	1	0	1	0	1	0	1
ET1	1511	1572	1	0	1	0	1	0	1	0	1	0	1
ET1	1572		6	0	6	0	6	0	6	0	6	0	6
ET1	1572	1491	1	0	1	0	1	0	1	0	1	0	1
ET1	1572	9502	7	0	7	0	7	0	7	0	7	0	7
ET1	1572	9527	1	0	1	0	1	0	1	0	1	0	1
ET1	5352	1572	1	0	1	0	1	0	1	0	1	0	1
ET2	1572		13	0	13	0	13	0	13	0	13	0	13
ET2	1572	9502	7	0	7	0	7	0	7	0	7	0	7
ET2	1572	9526	3	0	3	0	3	0	3	0	3	0	3
ET2	1572	9527	2	0	2	0	2	0	2	0	2	0	2
ET3	1572		4	0	4	0	4	0	4	0	4	0	4
ET3	1572	1425	1	0	1	0	1	0	1	0	1	0	1
ET2157	1572	9526	1	0	1	0	1	0	1	0	1	0	1
Staff Billets ACDU and TAR													
ETC	1572	9502	1	0	1	0	1	0	1	0	1	0	1
ET1	1572	9502	6	0	6	0	6	0	6	0	6	0	6
ET2	1572	9502	7	0	7	0	7	0	7	0	7	0	7

II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS

DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS	BILLET BASE	CFY02 +/-	CFY02 CUM	FY03 +/-	FY03 CUM	FY04 +/-	FY04 CUM	FY05 +/-	FY05 CUM	FY06 +/-	FY06 CUM
Chargeable Student Billets ACDU and TAR			25	0	25	-1	24	0	24	0	24	0	24
TOTAL USN ENLISTED BILLETS:													
Operational			172	-3	169	0	169	0	169	0	169	0	169
Fleet Support			62	0	62	0	62	0	62	0	62	0	62
Staff			14	0	14	0	14	0	14	0	14	0	14
Chargeable Student			25	0	25	-1	24	0	24	0	24	0	24
c. OFFICER - USMC				NA									
d. ENLISTED - USMC				NA									

II.B. ANNUAL TRAINING INPUT REQUIREMENTS

CIN, COURSE TITLE: A-102-0062, AIMS MK XII IFF System Maintenance
COURSE LENGTH: 16.0 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 10% **BACKOUT FACTOR:** 0.32

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	CFY02 OFF	CFY02 ENL	FY03 OFF	FY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL
Fleet Training Center, Norfolk, VA												
	USN	ACDU		81		80		80		80		80
		TAR		4		4		4		4		4
		TOTAL:		85		84		84		84		84

PART III - TRAINING REQUIREMENTS

The following elements are not affected by the AIMS MK XII and, therefore, are not included in Part III of this NTSP:

III.A.1. Initial Training Requirements

III.A.2. Follow-on Training

III.A.2.b. Planned Courses

III.A.2.c. Unique Courses

III.A.3. Existing Training Phased Out

III.A.2. FOLLOW-ON TRAINING

III.A.2.a. EXISTING COURSES

CIN, COURSE TITLE: A-102-0062, AIMS MK XII IFF System Maintenance
TRAINING ACTIVITY: Fleet Training Center
LOCATION, UIC: Norfolk, VA, 61797

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
85		84		84		84		84		ATIR
77		76		76		76		76		Output
24.3		24.0		24.0		24.0		24.0		AOB
24.3		24.0		24.0		24.0		24.0		Chargeable

PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS

The following elements are not affected by the AIMS MK XII and, therefore, are not included in Part IV of this NTSP:

IV.A. Training Hardware

IV.A.2. Training Devices

IV.B.1. Training Services

IV.C. Facility Requirements

IV.C.1. Facility Requirements Summary (Space/Support) by Activity

IV.C.2. Facility Requirements Detailed by Activity and Course

IV.C.3. Facility Project Summary by Program

IV.A. TRAINING HARDWARE

IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

CIN, COURSE TITLE: A-102-0062, AIMS MK XII IFF System Maintenance
TRAINING ACTIVITY: Fleet Training Center
LOCATION, UIC: Norfolk, VA, 61797

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE					
001	Signal Generator, SG-841/UPX	19	Jun 00	GFE	Onboard
002	Control Monitor Unit, C-8430/UPX	17	Jun 00	GFE	Onboard
003	Electronic Switch, SA-1807/UPA-61	17	Jun 00	GFE	Onboard
004	Control Monitor, C-8430/UPX	17	Jun 00	GFE	Onboard
005	Interrogator Mode 4 Computer, KIR-1()TSEC	18	Jun 00	GFE	Onboard
006	Transponder Mode 4 Computer, KIT1()/TSEC	18	Jun 00	GFE	Onboard
007	Base Mount, MT-4667/U	34	Jun 00	GFE	Onboard
008	Code Tape Reader, KOI-18/TSEC	2	Jun 00	GFE	Onboard
009	Code Changer, KYK-13/TSEC	2	Jun 00	GFE	Onboard
010	Data Transfer Device, AN/CYZ-10	2	Jun 00	GFE	Onboard
011	Alarm Monitor, BZ-173/UPA-59	17	Jun 00	GFE	Onboard
012	Receiver-Transmitter, RT859A/APX-72	17	Jun 00	GFE	Onboard
013	Transponder Control Set, C-6280A/APX-72	17	Jun 00	GFE	Onboard
014	Control Case, CY-6816/APX-72	17	Jun 00	GFE	Onboard
015	Electronic Gate, TD-937B/APX-72	17	Jun 00	GFE	Onboard
016	Mount, MT-3513()/APX	17	Jun 00	GFE	Onboard
017	Mount, MT-3809/APX-72	17	Jun 00	GFE	Onboard
018	Interrogator Set, AN/UPX-27	17	Jun 00	GFE	Onboard
019	Interference Blanker, MX-8758A/UPX	17	Jun 00	GFE	Onboard

IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

020	Video Synchronizer, SN-501/UPX	17	Jun 00	GFE	Onboard
021	Decoder Group, AN/UPN-59A (V2)	2	Jun 00	GFE	Onboard
022	Decoder Group. AN/UPA-59B (V2)	17	Jun 00	GFE	Onboard
023	Radar Trainer, AN/SPS-T3	2	Jun 00	GFE	Onboard
024	Signal Distribution Switchboard, SB-1505	2	Jun 00	GFE	Onboard
025	Trigger Amplifier, AM-1913D/UP	8	Jun 00	GFE	Onboard
026	Video Amplifier, AM-1914	12	Jun 00	GFE	Onboard
027	Indicator Group, AN/SPA-25	16	Jun 00	GFE	Onboard
028	Antenna, AS-177B/UPX	2	Jun 00	GFE	Onboard
029	Antenna, AS-2188/U	1	Jun 00	GFE	Onboard
030	Digital Interrogator, AN/UPX-37	9	Jun 00	GFE	Onboard
GPETE					
041	Oscilloscope, COS-6100M	16	Jun 00	GFE	Onboard
042	Oscilloscope, 2246	2	Jun 00	GFE	Onboard
043	Electronic Counter, AQI-5328/096	2	Jun 00	GFE	Onboard
044	Digital Multimeter, 77/AN	16	Jun 00	GFE	Onboard
045	Volt Ohm Meter, Simpson 260	2	Jun 00	GFE	Onboard
046	Power Measuring Set, AN/USM-177B	2	Jun 00	GFE	Onboard
047	Megger, MINI500	1	Jun 00	GFE	Onboard
048	Pulse Generator, SG-816/U	1	Jun 00	GFE	Onboard
049	Direct Current Differential Voltmeter, AN/USM-381	2	Jun 00	GFE	Onboard
050	Crystal Detector, CAQI-423A	2	Jun 00	GFE	Onboard
051	Digital Multimeter, 8000A/BU	2	Jun 00	GFE	Onboard
052	Pulse Generator, SG-1066	17	Jun 00	GFE	Onboard
SPETE					
060	Radar Test Set, AN/USM-155	20	Jun 00	GFE	Onboard

IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

061	Pulse Generator, SG-1066	17	Jun 00	GFE	Onboard
062	Transponder Test Set, TS-1843B/APX-72	17	Jun 00	GFE	Onboard

IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

CIN, COURSE TITLE: A-102-0062, AIMS MK XII IFF System Maintenance
TRAINING ACTIVITY: Fleet Training Center
LOCATION, UIC: Norfolk, VA, 61797

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Computer Projector, LITEPRO 720	2	Jun 00	Onboard
Instructor Guide	2	Jun 00	Onboard
Knowledge Test Administrator's Guide	2	Jun 00	Onboard
Knowledge Test Bank	2	Jun 00	Onboard
Lesson Plan	2	Jun 00	Onboard
Pentium Computer with 17" monitor	2	Jun 00	Onboard
Pre-Faulted AN/UPA-59A(V)2 Modules	set of 18	Jun 00	Onboard
Pre-Faulted AN/UPA-59B(V)2 Modules	set of 5	Jun 00	Onboard
Pre-Faulted AN/UPA-61 Modules	set of 2	Jun 00	Onboard
Pre-Faulted AN/UPX-27 Modules	set of 14	Jun 00	Onboard
Pre-Faulted AN/UPX-37 Modules	set of 3	Jun 00	Onboard
Pre-Faulted MX-8758A/UPX Modules	set of 16	Jun 00	Onboard
Pre-Faulted RT-859A/APX-72 Modules	set of 12	Jun 00	Onboard
Pre-Faulted SG-1006/UPX Modules	set of 8	Jun 00	Onboard
Pre-Faulted SG-841/UPX Modules	set of 4	Jun 00	Onboard
Pre-Faulted SN-501/UPX Modules	set of 8	Jun 00	Onboard
Student Guide	20	Jun 00	Onboard
Student Guide Answer Key	20	Jun 00	Onboard
Video Cassette "Introduction to AIMS MK XII IFF"	1	Jun 00	Onboard
Video Cassette "Introduction to the AN/UPM-155 Radar Test Set"	1	Jun 00	Onboard
Video Cassette Recorder	1	Jun 00	Onboard

IV.B.3. TECHNICAL MANUALS

CIN, COURSE TITLE: A-102-0062, AIMS MK XII IFF System Maintenance
TRAINING ACTIVITY: Fleet Training Center
LOCATION, UIC : Norfolk, VA, 61797

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
0816-LP-091-4540 RT-859/APX-72 and RT-859A/APX-72 Maintenance	Hard copy	40	Jun 00	Onboard
0816-LP-091-4541 RT-859/APX-72 and RT-859A/APX-72 Illustrated Parts Breakdown	Hard copy	40	Jun 00	Onboard
0967-LP-377-1010 AS-177A/UPX Antenna Assembly Instruction Book	Hard copy	40	Jun 00	Onboard
0967-LP-390-8030 AIMS MK XII IFF System Maintenance	Hard copy	40	Jun 00	Onboard
0967-LP-390-8040 AIMS MK XII IFF System Operators Manual	Hard copy	40	Jun 00	Onboard
0967-LP-427-0010 TD-937A/SPX Electronic Gate Maintenance	Hard copy	40	Jun 00	Onboard
0967-LP-434-9010 AS-177B/UPX Antenna Maintenance	Hard copy	40	Jun 00	Onboard
0967-LP-450-4010 AS-2787/UPX Antenna Operator Chart	Hard copy	40	Jun 00	Onboard
0967-LP-542-5010 AN/UPX-27 Interrogator Set Maintenance	Hard copy	40	Jun 00	Onboard
0967-LP-958-8010 AS-1065/UPX Antenna Maintenance	Hard copy	40	Jun 00	Onboard
0969-LP-130-5010 SG-841/UPX Pulse Generator Maintenance	Hard copy	40	Jun 00	Onboard
0969-LP-166-3010 SG-1066/UPX Pulse Generator Maintenance	Hard copy	40	Jun 00	Onboard
EE-010-OA-OP1-010 PP-6099B/APX-72 Power Supply Maintenance	Hard copy	40	Jun 00	Onboard
EE-112-D-FCB-002/2114-AS-2188A AS-2188/U Antenna Maintenance	Hard copy	40	Jun 00	Onboard

IV.B.3. TECHNICAL MANUALS

EE-216-GP-OMI-010 CY-6816/APX and CY-6816A/APX Control Case Maintenance	Hard copy	40	Jun 00	Onboard
EE-220-TT-GYD-010 MK XII IFF User's Guide	Hard copy	40	Jun 00	Onboard
EE-230-BK-IMMO-010 CY-7557/UPX-28 Transponder Test Set Operation and Maintenance	Hard copy	40	Jun 00	Onboard
EE-230-BT-OMI-010 AN/UPX-29(V) Operation and Maintenance	Hard copy	40	Jun 00	Onboard
EE-230-CJ-OMI-010 AN/UPA-59A and AN/UPA-59B Decoder Group Maintenance	Hard copy	40	Jun 00	Onboard
EE-230-EA-OMI-010 AS-2189/U IFF Antenna Operation and Maintenance	Hard copy	40	Jun 00	Onboard
EE-230-FA-OMI-010 AN/UPA-61 Switching Group Maintenance	Hard copy	40	Jun 00	Onboard
EE-230-FC-PIH-010 AN/UPA-59A(V)2 and AN/UPA-59B(V)2 Decoder Group Programmed Instruction Book	Hard copy	40	Jun 00	Onboard
EE-230-WA-OMI-010 AS-3430/SPX Antenna Maintenance	Hard copy	40	Jun 00	Onboard
EE-690-DF-INM-010 MX-8758A/UPX Interface Blanker Maintenance	Hard copy	40	Jun 00	Onboard
N0002400003 Electronics Installation and Maintenance Book	Hard copy	2	Jun 00	Onboard
NA 16-30UPM155-1 AN/UPM155 Radar Test Set Operating Instructions	Hard copy	40	Jun 00	Onboard
NA 16-35C6280-1 Revision 1 C-6280(P)/APX Control Maintenance	Hard copy	40	Jun 00	Onboard
NA 16-35TS1843-1 TS-1843A/APX Test Set Operation and Maintenance	Hard copy	40	Jun 00	Onboard
NA 16-35TS1843-2 TS-1843B/APX Test Set Operation and Maintenance	Hard copy	40	Jun 00	Onboard

IV.B.3. TECHNICAL MANUALS

NA 16-60MKXII-FM-1 MK XII IFF Interface User's Guide	Hard copy	40	Jun 00	Onboard
NA 16-60SN501-1 SN-501/UPX Video Synchronizer Maintenance	Hard copy	40	Jun 00	Onboard
NA 16-60UPX25-1 AN/UPX-25 Interrogator Set Maintenance	Hard copy	40	Jun 00	Onboard
NA 1630UPM155-2 AN/UPM155 Radar Test Set Maintenance	Hard copy	2	Jun 00	Onboard
NAVSHIPS 92903(A) Radar Signal Distribution Switchboard Maintenance	Hard copy	2	Jun 00	Onboard
SE 230-AA-OP1-010 C-8430/UPX Control Monitor Maintenance	Hard copy	40	Jun 00	Onboard
SE-000-01-IMB-010 Electronics Installation and Maintenance Book	Hard copy	2	Jun 00	Onboard
SE280-cb-MMA-010 AN/SPS-T3B and AN/SPC T3C Maintenance	Hard copy	2	Jun 00	Onboard

PART V - MPT MILESTONES

COG CODE	MPT MILESTONES	DATE	STATUS
CNO	Approved AIMS MK XII for fleet use.	May 71	Completed
TSA	Established revised AIMS MK XII maintenance training at FTC Norfolk.	Jun 97	Completed
PDA	Awarded contract for new AN/UPX-37 Digital Interrogator.	Jul 98	Completed
PDA	Completed AN/UPX-37 Digital Interrogator DT&E.	May 99	Completed
PDA	Completed AN/UPX-37 Digital Interrogator OT&E.	Sep 99	Completed
CNO	Approved AIMS MK XII NTSP.	Apr 00	Completed
TSA	Delivered AN/UPX-37 Digital Interrogator TTE to FTC Norfolk.	Jun 00	Completed
PDA	Began first fleet installation of AN/UPX-37 Digital Interrogator.	Oct 00	Completed
PDA	Achieved AN/UPX-37 Digital Interrogator Initial Operating Capability.	Dec 00	Completed
PDA	Achieved AN/UPX-37 Digital Interrogator Material Support Date	Dec 00	Completed
PDA	Achieved AN/UPX-37 Digital Interrogator Navy Support Date.	Dec 00	Completed
TSA	Developed Draft NTSP (Update).	Mar 02	Completed
TSA	Post Draft NTSP on OPNAV web for Fleet review.	Jul 02	Completed
TSA	Began follow-on AN/UPX-37 maintenance training at FTC Norfolk	Oct 02	Pending
PDA	Achieved CXP Navy Support Date.	Feb 03	Pending

PART VI ACTION ITEMS/ACTION REQUIRED

No actions pending.

PART VII - POINTS OF CONTACT

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